

Claims:

1. A method of determining a network management scalability threshold of a network manager with respect to a network, comprising:

- 5       gathering information about the network;  
      gathering information about the network manager; and  
      determining a maximum size threshold of a zone in the network based on  
the gathered network information and the gathered network manager information.

2. The method of Claim 1, wherein:

- 10       the information about the network manager includes an amount of memory  
available to the network manager; and  
      the determining includes assigning a value to the maximum size threshold  
of a zone in the network based on the amount of memory available to the network  
manager.

3. The method of Claim 2, wherein:

- 15       the information about the network includes a number of each type of node  
in the network, and a ratio of switches to other types of nodes in the network; and  
      the determining includes decreasing the maximum size threshold of a zone  
in the network if the ratio of switches to other types of nodes in the network  
exceeds a first threshold, and increasing the maximum size threshold of a zone in  
20   the network if the ratio of switches to other types of nodes in the network is below  
a second threshold.

4. The method of Claim 3, wherein:

- the information about the network includes a total number of connections  
between each switch in the network and other nodes in the network, and a ratio of  
25   a) the total number of connections to b) a number of nodes in the network; and

the determining includes decreasing the maximum size threshold of a zone in the network if the ratio of the total number of connections to nodes exceeds a third threshold, and increasing the maximum size threshold of a zone in the network if the ratio of the total number of connections to the number of nodes in the network is below a fourth threshold.

5. The method of Claim 4, wherein the number of connections is a number of connections between the switches in the network and other nodes in the network.

6. The method of Claim 4, wherein:  
the information about the network includes a number of interfaces in the network, and a ratio of a) interfaces in the network to b) nodes in the network; and

the determining includes decreasing the maximum size threshold of a zone in the network if the ratio of interfaces to nodes equals or exceeds a fifth threshold, and increasing the maximum size threshold of a zone in the network if the ratio of interfaces to nodes in the network is below a sixth threshold.

7. The method of Claim 6, wherein the fifth and sixth thresholds are the same, the first threshold is greater than the second threshold, and the third threshold is greater than the fourth threshold.

8. The method of Claim 1, wherein the network is a zone candidate or subset of a larger network and includes specific nodes.

9. The method of Claim 1, comprising preventing the network manager from discovering or managing a zone of the network having a size exceeding the determined maximum size threshold.

10. A system for determining a network management scalability threshold of a network manager with respect to a network, comprising:

means for gathering information about the network, gathering information about the network manager, and determining a maximum size threshold of a zone  
5 in the network based on the gathered network information and the gathered network manager information; and  
means for connecting the network manager to the network.

11. The system of Claim 10, wherein:

the information about the network manager includes an amount of memory  
10 available to the network manager; and

the means for gathering and determining assigns a value to the maximum size threshold of a zone in the network based on the amount of memory available to the network manager.

12. The system of Claim 11, wherein:

15 the information about the network includes a number of each type of node in the network, and a ratio of switches to other types of nodes in the network; and  
the means for gathering and determining decreases the maximum size threshold of a zone in the network if the ratio of switches to other types of nodes in the network exceeds a first threshold, and increases the maximum size threshold  
20 of a zone in the network if the ratio of switches to other types of nodes in the network is below a second threshold.

13. The system of Claim 12, wherein:

the information about the network includes a total number of connections between each switch in the network and other nodes in the network, and a ratio of  
25 a) the total number of connections to b) a number of nodes in the network; and

the means for gathering and determining decreases the maximum size threshold of a zone in the network if the ratio of the total number of connections to nodes exceeds a third threshold, and increases the maximum size threshold of a zone in the network if the ratio of the total number of connections to the number of nodes in the network is below a fourth threshold.

14. The system of Claim 13, wherein the number of connections is a number of connections between the switches in the network and other nodes in the network.

15. The system of Claim 13, wherein:  
the information about the network includes a number of interfaces in the network, and a ratio of a) interfaces in the network to b) nodes in the network; and

the means for gathering and determining decreases the maximum size threshold of a zone in the network if the ratio of interfaces to nodes equals or exceeds a fifth threshold, and increases the maximum size threshold of a zone in the network if the ratio of interfaces to nodes in the network is below a sixth threshold.

16. The system of Claim 15, wherein the fifth and sixth thresholds are the same, the first threshold is greater than the second threshold, and the third threshold is greater than the fourth threshold.

17. The system of Claim 10, wherein the network is a zone candidate or subset of a larger network and includes specific nodes.

18. The system of Claim 10, wherein the means for gathering and determining prevents the network manager from discovering or managing a zone of the network having a size exceeding the determined maximum size threshold.

19. A machine readable medium comprising a computer program for  
5 causing a computer to perform:  
gathering information about a network;  
gathering information about a network manager arranged to monitor the network; and  
determining a maximum size threshold of a zone in the network based on  
10 the gathered network information and the gathered network manager software program information.

20. The medium of Claim 19, wherein:  
the information about the network manager includes an amount of memory available to the network manager; and  
15 the determining includes assigning a value to the maximum size threshold of a zone in the network based on the amount of memory available to the network manager.

21. The medium of Claim 20, wherein:  
the information about the network includes a number of each type of node  
20 in the network, and a ratio of switches to other types of nodes in the network; and  
the determining includes decreasing the maximum size threshold of a zone in the network if the ratio of switches to other types of nodes in the network exceeds a first threshold, and increasing the maximum size threshold of a zone in the network if the ratio of switches to other types of nodes in the network is below  
25 a second threshold.

22. The medium of Claim 21, wherein:

the information about the network includes a total number of connections between each switch in the network and other nodes in the network, and a ratio of a) the total number of connections to b) a number of nodes in the network; and

5 the determining includes decreasing the maximum size threshold of a zone in the network if the ratio of the total number of connections to nodes exceeds a third threshold, and increasing the maximum size threshold of a zone in the network if the ratio of the total number of connections to the number of nodes in the network is below a fourth threshold.

10 23. The medium of Claim 22, wherein the number of connections is a number of connections between the switches in the network and other nodes in the network.

24. The medium of Claim 22, wherein:

15 the information about the network includes a number of interfaces in the network, and a ratio of a) interfaces in the network to b) nodes in the network; and

the determining includes decreasing the maximum size threshold of a zone in the network if the ratio of interfaces to nodes equals or exceeds a fifth threshold, and increasing the maximum size threshold of a zone in the network if  
20 the ratio of interfaces to nodes in the network is below a sixth threshold.

25. The medium of Claim 24, wherein the fifth and sixth thresholds are the same, the first threshold is greater than the second threshold, and the third threshold is greater than the fourth threshold.

26. The medium of Claim 19, wherein the network is a zone candidate or  
25 subset of a larger network and includes specific nodes.

27. The medium of Claim 19, comprising a computer program for causing a computer to perform:

preventing the network manager from discovering or managing a zone of the network having a size exceeding the determined maximum size threshold.